

Title (en)

Method for tempering stainless steel and fused salt for performing the method

Title (de)

Verfahren zum Härten von Edelstahl und Salzschnmelze zur Durchführung des Verfahrens

Title (fr)

Procédé destiné au durcissement de l'acier inoxydable et de sels fondus pour l'exécution du procédé

Publication

**EP 1865088 B1 20090916 (DE)**

Application

**EP 07010534 A 20070526**

Priority

DE 102006026883 A 20060609

Abstract (en)

[origin: US2008099108A1] A process for hardening a work piece of stainless steel through diffusion of the elements carbon and/or nitrogen into the work piece surfaces. The work piece is submerged into a molten salt bath and subjected to the molten salt bath for a period ranging from 15 minutes to 240 hours at temperatures below 450° C. In addition to potassium chloride and lithium chloride, the molten salt bath contains an activator substance consisting of barium chloride, strontium chloride, magnesium chloride and/or calcium chloride, and a free or complex cyanide as carbon-donating substance.

IPC 8 full level

**C23C 8/46** (2006.01); **C23C 8/50** (2006.01); **C23C 8/56** (2006.01)

CPC (source: EP KR US)

**C21D 1/46** (2013.01 - KR); **C23C 8/46** (2013.01 - EP US); **C23C 8/50** (2013.01 - EP US); **C23C 8/56** (2013.01 - EP US)

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**US 2008099108 A1 20080501**; **US 7909943 B2 20110322**; AT E443163 T1 20091015; BR PI0702568 A 20080219; BR PI0702568 B1 20151013; CA 2591244 A1 20071209; CN 101235477 A 20080806; CN 101235477 B 20110518; DE 102006026883 B3 20070816; DE 102006026883 B8 20071004; DE 502007001522 D1 20091029; EP 1865088 A1 20071212; EP 1865088 B1 20090916; ES 2331383 T3 20091230; JP 2007332459 A 20071227; JP 5101173 B2 20121219; KR 20070118008 A 20071213; MX 2007006969 A 20081030; PL 1865088 T3 20100129; ZA 200704591 B 20080827

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**US 80855707 A 20070611**; AT 07010534 T 20070526; BR PI0702568 A 20070608; CA 2591244 A 20070605; CN 200710194450 A 20070608; DE 102006026883 A 20060609; DE 502007001522 T 20070526; EP 07010534 A 20070526; ES 07010534 T 20070526; JP 2007152834 A 20070608; KR 20070054825 A 20070605; MX 2007006969 A 20070608; PL 07010534 T 20070526; ZA 200704591 A 20070608